

FILEID**F11A

F 13

11

MC
/ 1
/ 1
/ 1
/ 1
/ 1

29

SSSSSSSS	DDDDDDDD	LL
SSSSSSSS	DDDDDDDD	LL
SS	DD	DD
SSSSSS	DD	DD
SSSSSS	DD	DD
SS	DD	DD
SSSSSSSS	DDDDDDDD	LLLLLLLL
SSSSSSSS	DDDDDDDD	LLLLLLLL

{ Version: 'V04-000'

* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
* ALL RIGHTS RESERVED.

* THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
* ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
* INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
* COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
* OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
* TRANSFERRED.

* THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
* AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
* CORPORATION.

* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.

* MODIFIED BY:
*
* 0102 MCN0003 Maria del C. Nasr 15-Oct-1979 15:15
* Add HDR3 of magnetic tape file

```

{
  FILE HEADER DEFINITIONS FOR FILE-11 STRUCTURE LEVEL 1
}

module SFHDEF;

aggregate FHDDEF structure prefix FHD$;
  IDOFFSET byte unsigned;           /* IDENT AREA OFFSET IN WORDS
  MPOFFSET byte unsigned;           /* MAP AREA OFFSET IN WORDS
  FID_OVERLAY union;
    FID word unsigned dimension 2;  /* FILE ID
    FID_FIELDS structure;
      FID_NUM word unsigned;        /* FILE NUMBER
      FID_SEQ word unsigned;        /* FILE SEQUENCE NUMBER
    end FID_FIELDS;
  end FID_OVERLAY;
  STRUCTLEV word unsigned;          /* FILE STRUCTURE LEVEL
  constant LEVEL1 equals 257 prefix FHD tag $C; /* 401 OCTAL = STRUCTURE LEVEL 1
  FILEOWNER OVERLAY union;
    FILEOWNER word unsigned;        /* FILE OWNER UIC
    FILEOWNER_FIELDS structure;
      UICMEMBER byte unsigned;      /* UIC MEMBER NUMBER
      UICGROUP byte unsigned;       /* UIC GROUP NUMBER
    end FILEOWNER_FIELDS;
  end FILEOWNER_OVERLAY;
  FILEPROT OVERLAY union;
    FILEPROT word unsigned;         /* FILE PROTECTION
    FILEPROT_BITS structure;
      SYSPRO bitfield length 4;    /* SYSTEM PROTECTION
      OWNPRO bitfield length 4;    /* OWNER PROTECTION
      GROUPPRO bitfield length 4;  /* GROUP PROTECTION
      WORLDPRO bitfield length 4; /* WORLD PROTECTION
    end FILEPROT_BITS;
  end FILEPROT_OVERLAY;
  FILECHAR OVERLAY union;
    FILECHAR word unsigned;         /* FILE CHARACTERISTICS
    FILECHAR_FIELDS structure;
      USERCHAR_OVERLAY union;
        USERCHAR byte unsigned;      /* USER CONTROLLED CHARACTERISTICS
        USERCHAR_BITS structure;
          FILL1 bitfield length 3 fill prefix FHDDEF tag $$; /* RESERVED
          READCHECK bitfield;        /* VERIFY ALL READ OPERATIONS
          WRTCHECK bitfield;         /* VERIFY ALL WRITE OPERATIONS
          CONTIGB bitfield;          /* KEEP FILE AS CONTIGUOUS AS POSSIBLE
          LOCKED bitfield;          /* FILE IS DEACCESS LOCKED
          CONTIG bitfield;           /* FILE IS CONTIGUOUS
        end USERCHAR_BITS;
      end USERCHAR_OVERLAY;
      SYSCHAR_OVERLAY union;
        SYSCHAR byte unsigned;       /* SYSTEM CONTROLLED CHARACTERISTICS
        SYSCHAR_BITS structure;
          FILE2 bitfield length 6 fill prefix FHDDEF tag $$; /* RESERVED
          BADBLOCK bitfield;         /* FILE CONTAINS BAD BLOCKS
          MARKDEL bitfield;          /* FILE IS MARKED FOR DELETE
        end SYSCHAR_BITS;
      end SYSCHAR_OVERLAY;
    end FILECHAR_FIELDS;

```

en

en

mo

ag

en

en

mo

co

ag

```

end FILECHAR_OVERLAY;
RECATTR word unsigned dimension 16;           /* FILE RECORD ATTRIBUTES
constant "LENGTH" equals . prefix FHDS tag K;  /* LENGTH OF HEADER AREA
constant "LENGTH" equals . prefix FHDS tag C;  /* LENGTH OF HEADER AREA
FILL 3 word dimension 232 fill prefix FHDEF tag $$; /* REST OF FILE HEADER
CHECKSUM word unsigned;                      /* FILE HEADER CHECKSUM
end FHDEF;

end_module SFHDEF;

module SFHIDEF;

aggregate FHIDEF structure prefix FHIS;
FILENAME word unsigned dimension 3;           /* FILE NAME (RAD-50)
FILETYPE word unsigned;                      /* FILE TYPE (RAD-50)
VERSION word unsigned;                      /* VERSION NUMBER (BINARY)
REVISION word unsigned;                      /* REVISION NUMBER (BINARY)
REVDATETIME character length 7;              /* REVISION DATE (ASCII DDMMYY)
REVTIME character length 6;                  /* REVISION TIME (ASCII HHMMSS)
CREDATE character length 7;                  /* CREATION DATE (ASCII DDMMYY)
CRETIME character length 6;                  /* CREATION TIME (ASCII HHMMSS)
EXPDATETIME character length 7;              /* EXPIRATION DATE (ASCII DDMMYY)
FILL 1 byte fill prefix FHIDEF tag $$;      /* DUMMY BYTE TO ROUND UP
constant "LENGTH" equals . prefix FHIS tag K; /* LENGTH OF IDENT AREA
constant "LENGTH" equals . prefix FHIS tag C; /* LENGTH OF IDENT AREA
MTHDR1 character length 80;                  /* HDR1 OF ANSI MAGNETIC TAPE FILE
MTHDR2 character length 80;                  /* HDR2 OF ANSI MAGNETIC TAPE FILE
MTHDR3 character length 80;                  /* HDR3 OF ANSI MAGNETIC TAPE FILE
end FHIDEF;

end_module SFHIDEF;

module SFHMDEF;

aggregate FHMDEF structure prefix FHMS;
EX-SENUM byte unsigned;                     /* EXTENSION SEGMENT NUMBER OF THIS HEADER
EX-RVN byte unsigned;                      /* EXTENSION RELATIVE VOLUME NUMBER
EX-FILNUM word unsigned;                   /* EXTENSION FILE NUMBER
EX-FILSEQ word unsigned;                   /* EXTENSION FILE SEQUENCE NUMBER
COUNTSIZE byte unsigned;                  /* RETRIEVAL POINTER COUNT FIELD SIZE
LBNSIZE byte unsigned;                   /* RETRIEVAL POINTER LBN FIELD SIZE
INUSE byte unsigned;                      /* NUMBER OF RETRIEVAL WORDS IN USE
AVAIL byte unsigned;                      /* NUMBER OF RETRIEVAL WORDS AVAILABLE
constant POINTERS equals . prefix FHMS tag K; /* START OF RETRIEVAL POINTERS
constant POINTERS equals . prefix FHMS tag C; /* START OF RETRIEVAL POINTERS
constant "LENGTH" equals . prefix FHMS tag K; /* LENGTH OF MAP AREA
constant "LENGTH" equals . prefix FHMS tag C; /* LENGTH OF MAP AREA
                                         /* RETRIEVAL POINTER FORMAT
end FHMDEF;

aggregate FHMDEF1 structure prefix FHMS;
HIGHLBN byte unsigned;                     /* HIGH ORDER LBN
COUNT byte unsigned;                      /* BLOCK COUNT

```

```
        LOWLBN word unsigned;           /* LOW ORDER LBN
end FHMDEF1;

aggregate FHMDEF2 structure prefix FHMS origin FILL_1;
        PREVHLBN byte unsigned;
        PREVCOUNT byte unsigned;
        PREVLLBN word unsigned;        /* PREVIOUS RETRIEVAL POINTER
        FILL_1 byte fill prefix FHMDEF tag $$;
end FHMDEF2;

end_module SFHMDEF;
```

en
en
ma
/*
/*
/*
/*
/*
/*
/*

ag

en
en

```

module SHMBDEF;
/+
/+
/* HOME BLOCK DEFINITIONS FOR FILES-11 STRUCTURE LEVEL 1
/+
/+-



aggregate HMBDEF structure prefix HMBS;
    IBMAPSIZE word unsigned;                                /* INDEX FILE BITMAP SIZE, BLOCKS
    IBMAPLBN longword unsigned;                            /* INDEX FILE BITMAP STARTING LBN
    MAXFILES word unsigned;                                /* MAXIMUM FILES ON VOLUME
    CLUSTER word unsigned;                                /* STORAGE BITMAP CLUSTER FACTOR
    DEVTYPE word unsigned;                                /* DISK DEVICE TYPE
    STRUCLEV word unsigned;                                /* VOLUME STRUCTURE LEVEL
    constant LEVEL1 equals 257 prefix HMB tag $C;        /* 401 OCTAL = STRUCTURE LEVEL 1
    VOLNAME character length 12;                          /* VOLUME NAME (ASCII)
    FILL 1 byte dimension 4 fill prefix HMBDEF tag $S;  /* SPARE
    VOLOWNR word unsigned;                                /* VOLUME OWNER UIC
    PROTECT OVERLAY union;
        PROTECT word unsigned;                            /* VOLUME PROTECTION
        PROTECT_BITS structure;
            SYSPRO bitfield length 4;                   /* SYSTEM PROTECTION
            OWNPRO bitfield length 4;                   /* OWNER PROTECTION
            GROUPPRO bitfield length 4;                 /* GROUP PROTECTION
            WORLDPKG bitfield length 4;                 /* WORLD PROTECTION
        end PROTECT_BITS;
    end PROTECT OVERLAY;
    VOLCHAR word unsigned;                                /* VOLUME CHARACTERISTICS
    FILEPROT word unsigned;                            /* DEFAULT FILE PROTECTION
    FILL 2 byte dimension 6 fill prefix HMBDEF tag $S;  /* SPARE
    WINDOW byte unsigned;                                /* DEFAULT WINDOW SIZE
    EXTEND byte unsigned;                                /* DEFAULT FILE EXTEND
    LRU_LIM byte unsigned;                                /* DEFAULT LRU LIMIT
    FILE 3 byte dimension 11 fill prefix HMBDEF tag $S; /* SPARE
    CHECKSUM1 word unsigned;                            /* FIRST CHECKSUM
    CREATE character length 14;                          /* VOLUME CREATION DATE
    FILL 4 byte dimension 398 fill prefix HMBDEF tag $S; /* SPARE
    VOLNAME2 character length 12;                      /* 2ND COPY OF VOLUME NAME
    OWNERNAME character length 12;                     /* VOLUME OWNER NAME
    FORMAT character length 12;                        /* VOLUME FORMAT TYPE
    FILL 5 byte dimension 2 fill prefix HMBDEF tag $S; /* SPARE
    CHECKSUM2 word unsigned;                            /* SECOND CHECKSUM
end HMBDEF;

end module SHMBDEF;

```

0432 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

